HYDROAMNIOS ASSOCIATED WITH FETAL DEFECTS IN BUFFALOES

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ABSTRACT

The present communication reports two cases of defective fetuses associated with hydroamnios in pregnant buffaloes and discusses its management.

Keywords: hydroamnios, renal dysgenesis, cyclopia, gestational accidents, fetal defects, buffaloes

INTRODUCTION

There are many unrelated complications that can occur during gestation in the cow and that may interfere with normal parturition. Hydroamnios is one such condition. It is characterized by gradual filling of the amniotic cavity (Drost, 2007). The condition may be associated with a genetically abnormal or defective fetus (Roberts, 1982). Reports on hydroamnios in buffaloes are scanty; hence, the present communication places on record two cases of hydroamnios associated with fetal defects in buffaloes.

CASE HISTORY AND CLINICAL OBSERVATIONS

Case I: A full-term primiparous buffalo having had dystocia for six hours was attended for obstetrical maneuvering at the farmer's door step. Its history revealed that the animal had a pear-shaped abdomen that developed slowly as the gestation progressed, and after the rupture of the allanto-chorion, approximately 40 liters of thick viscid fluid suggestive of excessive accumulation of amniotic fluid had escaped from the birth canal. On clinical examination the animal was dull and depressed. Detailed obstetrical examination revealed a fully formed defective fetus in posterior longitudinal presentation, dorso-sacral position and ankylosed hind limbs extending into the birth canal.

Under posterior epidural anesthesia with proper lubrication, the defective fetus was delivered manually by moderate traction. Upon delivery the abnormal fetus revealed ankylosed left knee, right forelimb fetlock, left hock and right hind limb fetlock with anterior deviation. The fetus also had a partially ankylosed defective lower jaw (Figure 1). Autopsy of the fetus revealed small firm kidneys suggestive of renal dysgenesis. The placenta was

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Figure 1. Defective fetus with ankylosed jaw and limbs.

Figure 2. Defective fetus with deformed face (Cyclopia) and ankylosed limbs.

expelled normally within one hour after manual delivery of the defective fetus.

Case II: A pluriparous buffalo at the seventh month of gestation was presented to the dispensary with a history of a pear-shaped abdominal enlargement not correlating with the gestational age and straining since one hour after rupture of allanto-chorion with an impending abortion. Detailed obstetrical examination under posterior epidural anesthesia revealed an intact amniotic sac, its rupture lead to escape of about 50 liters of thick viscid amniotic fluid. A defective fetus was palpable deep in the uterus and was delivered per vaginum by mild traction. The defective fetus had a central median eye with two eye balls (cyclopia), a poorly developed rostrum, a lower jaw longer compared to the upper, a deformed mouth, and a protruding tongue with ankylosed limbs (Figure 2). The animal had retention of fetal membranes, which were allowed to shed naturally at 96 h post delivery. Secondary bacterial invasion was prevented by administering Inj. Enrofloxacin 20 ml IM for 5 days along with supportive therapy (Hugo Eiler, 1997).

TREATMENT AND DISCUSSION

Supportive therapy for these cases included isotonic salines IV at delivery to counteract stress and dehydration, oxyteracycline 4 gm oblet IU once daily for 3 days, uterine ecbolics for 5 days and Inj lutalyse 25 mg IM immediately after delivery to hasten uterine delivery (Sloss and Duffty, 1980). Both the cases had uneventful recovery with good subsequent fertility. The findings recorded in the present report are in agreement with those of Drost (2007) who reported that the uterus contains viscid fluid which may contain muconium at parturition with a defective fetus. Hydroamnios can be due to hereditary or fetal anomalies with impaired deglutination or renal digenesis or agenesis that leads gradual accumulation of amniotic fluid (Roberts, 1982; Drost, 2006). Hereditary causes in the present report can be ruled out as these cases are sporadic with different sires. Defective fetuses with renal dysgenesis in Case I and impaired deglutination due to defective face in Case II might have led to the occurrence of hydroamnios (Roberts, 1982; Drost, 2006). A similar case of dystocia in a buffalo due to fetal monster accompanying hydrops amnii was reported by Sathya *et al.* (2006) who opined that occurrence of this condition in buffaloes is less common and was associated with specific fetal abnormalities of the face. Honparkhe *et al.* (2010) also have opined that fetal head abnormalities like cleft palate and caltin mark lead to the formation of hydroamions due to impaired deglutination.

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